

Section 1. Registration Information

Source Identification

Facility Name:	JCI Jones Chemicals, Inc. - Barberton, OH
Parent Company #1 Name:	
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	Re-submission
Subsequent RMP Submission Reason:	5-year update (40 CFR 68.190(b)(1))
Description:	
Receipt Date:	02-Jun-2014
Postmark Date:	02-Jun-2014
Next Due Date:	02-Jun-2019
Completeness Check Date:	10-Jun-2016
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0012 6981
Other EPA Systems Facility ID:	44203JNSCH2500V
Facility Registry System ID:	1100 0038 8438

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	2216091
Parent Company #1 DUNS:	
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	2500 Vanderhoof Road
Street 2:	
City:	Barberton
State:	OHIO
ZIP:	44203
ZIP4:	
County:	SUMMIT

Facility Latitude and Longitude

Latitude (decimal):	40.978019
Longitude (decimal):	-081.607819
Lat/Long Method:	Interpolation - Satellite
Lat/Long Description:	Center of Facility
Horizontal Accuracy Measure:	150
Horizontal Reference Datum Name:	North American Datum of 1983
Source Map Scale Number:	

Owner or Operator

Operator Name:	JCI Jones Chemicals, Inc.
Operator Phone:	(330) 825-4521

Mailing Address

Operator Street 1:	2500 Vanderhoof Road
Operator Street 2:	
Operator City:	Barberton
Operator State:	OHIO
Operator ZIP:	44203
Operator ZIP4:	
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Dan Casmey
RMP Title of Person or Position:	Branch Manager
RMP E-mail Address:	dcasmey@jcichem.com

Emergency Contact

Emergency Contact Name:	Dan Casmey
Emergency Contact Title:	Branch Manager
Emergency Contact Phone:	(330) 825-4521
Emergency Contact 24-Hour Phone:	(330) 472-5519
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	dcasmey@jcichem.com

Other Points of Contact

Facility or Parent Company E-mail Address:	dcasmey@jcichem.com
Facility Public Contact Phone:	(330) 825-4521
Facility or Parent Company WWW Homepage Address:	www.jcichem.com

Local Emergency Planning Committee

LEPC:	Summit County LEPC
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Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	12
FTE Claimed as CBI:	

Covered By

OSHA PSM :	Yes
EPCRA 302 :	Yes
CAA Title V:	

Air Operating Permit ID:

OSHA Ranking

OSHA Star or Merit Ranking:

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	24-May-2012
Last Safety Inspection Performed By an External Agency:	Ohio Bureau of Workers Compensation

Predictive Filing

Did this RMP involve predictive filing?:

Preparer Information

Preparer Name:
Preparer Phone:
Preparer Street 1:
Preparer Street 2:
Preparer City:
Preparer State:
Preparer ZIP:
Preparer ZIP4:
Preparer Foreign State:
Preparer Foreign Country:
Preparer Foreign ZIP:

Confidential Business Information (CBI)

CBI Claimed:
Substantiation Provided:
Unsanitized RMP Provided:

Reportable Accidents

Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidents reported for this RMP.
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Process Chemicals

Process ID:	1000052155
Description:	
Process Chemical ID:	1000063228
Program Level:	Program Level 3 process
Chemical Name:	Chlorine
CAS Number:	7782-50-5
Quantity (lbs):	360000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process ID:	1000052156
Description:	
Process Chemical ID:	1000063229
Program Level:	Program Level 3 process
Chemical Name:	Sulfur dioxide (anhydrous)
CAS Number:	7446-09-5
Quantity (lbs):	360000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process NAICS

Process ID:	1000052155
Process NAICS ID:	1000052779
Program Level:	Program Level 3 process
NAICS Code:	42469
NAICS Description:	Other Chemical and Allied Products Merchant Wholesalers

Process ID:	1000052156
Process NAICS ID:	1000052780
Program Level:	Program Level 3 process
NAICS Code:	42469
NAICS Description:	Other Chemical and Allied Products Merchant Wholesalers

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000042542

Percent Weight:	
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Rural

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	None

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000045155

Percent Weight:	
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Wind Speed (m/sec):	3.0
Atmospheric Stability Class:	D
Topography:	Rural

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	None

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Neutralization:	
Excess Flow Valve:	
Flares:	
Scrubbers:	
Emergency Shutdown:	Yes
Other Type:	Gas detection sensors, emergency shutoff system, railcar valve closure system.

Toxic Alter ID: 1000045156

Percent Weight:	
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Wind Speed (m/sec):	3.0
Atmospheric Stability Class:	D
Topography:	Rural

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	None

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Neutralization:	
Excess Flow Valve:	
Flares:	
Scrubbers:	

Emergency Shutdown:

Yes

Other Type:

Gas detection sensor, emergency shutoff system,
railcar valve closure system.

Section 4. Flammables: Worst Case

No records found.

Section 5. Flammables: Alternative Release

No records found.

Section 6. Accident History

Accident History ID: 1000044858

Date of Accident:	27-Jan-2016
Time Accident Began (HHMM):	1520
NAICS Code of Process Involved:	42469
NAICS Description:	Other Chemical and Allied Products Merchant Wholesalers
Release Duration:	000 Hours 01 Minutes

Release Event

Gas Release:	Yes
Liquid Spill/Evaporation:	
Fire:	
Explosion:	
Uncontrolled/Runaway Reaction:	

Release Source

Storage Vessel:	
Piping:	
Process Vessel:	
Transfer Hose:	
Valve:	
Pump:	
Joint:	
Other Release Source:	Compressed gas cylinder.

Weather Conditions at the Time of Event

Wind Speed:	10.0
Units:	miles/h
Direction:	S
Temperature:	30
Atmospheric Stability Class:	C
Precipitation Present:	
Unknown Weather Conditions:	

On-Site Impacts

Employee or Contractor Deaths:	0
Public Responder Deaths:	0
Public Deaths:	0
Employee or Contractor Injuries:	2
Public Responder Injuries:	0
Public Injuries:	0
On-Site Property Damage (\$):	0

Known Off-Site Impacts

Deaths:	0
Hospitalization:	0
Other Medical Treatments:	0

Evacuated:	0
Sheltered-in-Place:	0
Off-Site Property Damage (\$):	0

Environmental Damage

Fish or Animal Kills:	
Tree, Lawn, Shrub, or Crop Damage:	
Water Contamination:	
Soil Contamination:	
Other Environmental Damage:	None.

Initiating Event

Initiating Event:	Human Error
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Contributing Factors

Equipment Failure:	
Human Error:	Yes
Improper Procedures:	
Overpressurization:	
Upset Condition:	
By-Pass Condition:	
Maintenance Activity/Inactivity:	
Process Design Failure:	
Unsuitable Equipment:	
Unusual Weather Condition:	
Management Error:	
Other Contributing Factor:	

Off-Site Responders Notified

Off-Site Responders Notified:	No, not notified
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Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment:	
Revised Maintenance:	
Revised Training:	
Revised Operating Procedures:	
New Process Controls:	
New Mitigation Systems:	
Revised Emergency Response Plan:	
Changed Process:	
Reduced Inventory:	
None:	
Other Changes Introduced:	Discontinued the steaming out of empty/residue cylinders.

Confidential Business Information

CBI Claimed:	
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Chemicals in Accident History

Accident Chemical ID:	1000036015
Quantity Released (lbs):	2
Percent Weight:	99.5
Chemical Name:	Chlorine
CAS Number:	7782-50-5
Flammable/Toxic:	Toxic

Section 7. Program Level 3

Description

The prevention programs described in the facility's Safety, Safety Training, Process Hazard Analysis (PHA), and Mechanical Integrity manuals represent integrated administrative controls intended to provide for the safety of workers, the public, and the environment. Many of these prevention programs; i.e., PHAs, compliance audits, equipment inspections, and incident investigations have resulted in the development and implementation of additional safeguards (administrative and engineering controls). Control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits are built into the facility's covered processes and are inspected weekly and or in accordance with manufacturers recommendations. The covered processes are also equipped with alarms designed to alert personnel when the operating parameters exceed the allowable limits. The facility has developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) and the proper procedures to be followed in responding to all to alarms. Safeguards to prevent, detect, or control accidental releases of regulated substances are described in the facility's Safety, Safety Training Manuals, and Mechanical Integrity manuals and are inspected on a regular basis.

In addition, the facility has a comprehensive Security Plan designed to minimize if not prevent the potential impact on JCI personnel, facilities, equipment, processes and products as a result of unlawful acts either made or attempted by individuals seeking to harm personnel, property and or the environment.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000052911
Chemical Name:	Chlorine
Flammable/Toxic:	Toxic
CAS Number:	7782-50-5

Process ID:	1000052155
Description:	
Prevention Program Level 3 ID:	1000044080
NAICS Code:	42469

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	03-Apr-2014
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Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	03-Apr-2014
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The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

10-Apr-2014

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	Yes
Emergency Power:	
Backup Pump:	
Grounding Equipment:	
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	Yes
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	

Neutralization:

None:

Other Mitigation System in Use:

Gas sensors, emergency shutoffs, railcar valve closure system.

Monitoring/Detection Systems in Use

Process Area Detectors:

Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

Storage area detectors.

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

Yes

None:

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 20-Feb-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs): 14-Jan-2014

The Type of Training Provided

Classroom:

Yes

On the Job:

Yes

Other Training:

Job specific performance evaluations and emergency response drills.

The Type of Competency Testing Used

Written Tests:

Yes

Oral Tests:

Demonstration:

Yes

Observation:

Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 18-Apr-2013

Equipment Inspection Date (The date of the most recent equipment inspection or test): 30-Apr-2014

Equipment Tested (Equipment most recently inspected or tested): All valves (both actuated and manual), whips, transfer hoses, gauges, electric motors, pumps, tanks, heat exchangers, expansion chambers, etc. in accordance with JCI's Mechanical Integrity Program.

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures): 05-Feb-2013

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 24-Jan-2014

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review): 11-Oct-2011

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit): 24-Jan-2014

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 30-Sep-2014

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 24-Jan-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 24-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 24-Jan-2014

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

Confidential Business Information

CBI Claimed:

Description

The prevention programs described in the facility's Safety, Safety Training, Process Hazard Analysis (PHA), and Mechanical Integrity manuals represent integrated administrative controls intended to provide for the safety of workers, the public, and the environment. Many of these prevention programs; i.e., PHAs, compliance audits, equipment inspections, and incident investigations have resulted in the development and implementation of additional safeguards (administrative and engineering controls). Control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits are built into the facility's covered processes and are inspected weekly and or in accordance with manufacturers recommendations. The covered processes are also equipped with alarms designed to alert personnel when the operating parameters exceed the allowable limits. The facility has developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) and the proper procedures to be followed in responding to all to alarms. Safeguards to prevent, detect, or control accidental releases of regulated substances are described in the facility's Safety, Safety Training Manuals, and Mechanical Integrity manuals and are inspected on a regular basis.

In addition, the facility has a comprehensive Security Plan designed to minimize if not prevent the potential impact on JCI personnel, facilities, equipment, processes and products as a result of unlawful acts either made or attempted by individuals seeking to harm personnel, property and or the environment.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000053764
Chemical Name:	Sulfur dioxide (anhydrous)
Flammable/Toxic:	Toxic
CAS Number:	7446-09-5

Process ID:	1000052156
Description:	
Prevention Program Level 3 ID:	1000044700
NAICS Code:	42469

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	03-Apr-2014
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Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	03-Apr-2014
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The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	Yes
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	10-Apr-2014

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	Yes
Emergency Power:	
Backup Pump:	
Grounding Equipment:	
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	Yes
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	

Other Mitigation System in Use:

Gas sensors, emergency shutoffs, railcar valve closure system.

Monitoring/Detection Systems in Use

Process Area Detectors:

Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

Storage area detectors.

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Yes

Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

Yes

None:

Other Changes Since Last PHA or PHA Update:

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):

20-Feb-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):

14-Jan-2014

The Type of Training Provided

Classroom:

Yes

On the Job:

Yes

Other Training:

Job specific performance evaluations and emergency response drills.

The Type of Competency Testing Used

Written Tests:

Yes

Oral Tests:

Demonstration:

Yes

Observation:

Yes

Other Type of Competency Testing Used:

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):

18-Apr-2013

Equipment Inspection Date (The date of the most recent equipment inspection or test): 30-Apr-2014

Equipment Tested (Equipment most recently inspected or tested): All valves (both actuated and manual), whips, transfer hoses, gauges, electric motors, pumps, tanks, heat exchangers, expansion chambers, etc. in accordance with JCI's Mechanical Integrity Program.

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures): 05-Feb-2013

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 24-Jan-2014

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review): 11-Oct-2011

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit): 24-Jan-2014

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 30-Sep-2014

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 24-Jan-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 24-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 24-Jan-2014

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

No records found.

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?): Yes

Facility Plan (Does facility have its own written emergency response plan?): Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?): Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?): Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan): 21-Jan-2014

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees): 15-Nov-2013

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): Summit County LEPC

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (330) 643-2558

Subject to

OSHA Regulations at 29 CFR 1910.38:
 OSHA Regulations at 29 CFR 1910.120: Yes
 Clean Water Regulations at 40 CFR 112:
 RCRA Regulations at CFR 264, 265, and 279.52:
 OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:
 State EPCRA Rules or Laws: Yes
 Other (Specify):

Executive Summary

EXECUTIVE SUMMARY

JCI JONES CHEMICALS, INC.

BARBERTON, OHIO

1. Accidental Release Prevention and Emergency Response Policies

JCI is committed to being a responsible member of any community in which it has operations by giving top priority to operating in a safe and environmentally sound manner. As part of this commitment, JCI has obtained Responsible Care® Management System certification. Corporate policy dictates that facilities continuously identify methods to provide the safest working environment possible to its employees and to reduce the risk to the community and environment. This commitment to safe and environmentally sound operations is documented in the corporate policy and compliance/procedure manuals, which are available to all employees. This facility stresses safe and environmentally sound operations in employee training programs, and in written materials available at the facility. This facility's safety and environmental programs include monthly safety meetings of all employees. JCI has an environmental manual and a safety manual that cover general environmental and safety best practices and compliance topics. Each employee at this facility has access to the environmental and safety manuals that cover topics specific to this facility. There are regularly scheduled safety and environmental audits conducted by facility management, and periodic safety and environmental audits of the facility conducted by JCI corporate personnel. This risk management program document has been prepared to meet the requirements of the U.S. Environmental Protection Agency's Risk Management Program regulations as stated in 40 CFR Part 68 (Appendix A).

2. The JCI Facility and the Regulated Substances Handled

The primary function of this facility is to protect public health by supplying chemicals including chlorine and sodium hypochlorite to disinfect bulk water systems. The primary operations conducted at this facility include the distribution of inorganic chemicals and repackaging of inorganic gases. Chemicals are brought on site in bulk quantities (railcars, tank trucks, etc.), repackaged into smaller containers, and then transported to customers on an as-needed basis. Any residual compressed gas is absorbed in an appropriate solution and sold as product. The regulated substances handled by this facility are chlorine and sulfur dioxide.

3. The General Accidental Release Prevention Program and Chemical-Specific Prevention Steps

The prevention programs described in this facility's Safety and Safety Training Manuals represent integrated administrative controls intended to ensure the safety of workers, the public, and the environment. Many of these prevention programs (e.g., PHAs, compliance audits, incident investigations) result in the development and implementation of additional safeguards (administrative and engineering controls). All covered processes have control systems designed to maintain operating parameters (temperature, pressures, flow, and level) within allowable limits. The covered processes are also equipped with alarms to alert personnel when the operating parameters exceed the allowable limits. This facility developed procedures and conducted training of personnel to familiarize them with the consequences of exceeding allowable limits (safety and operability) to ensure the correct response to the alarms. Safeguards to prevent, detect, or mitigate accidental releases of regulated substances are described in the facility's Safety and Safety Training Manuals.

4. The Five-Year Accident History

This facility compiled a five-year accident history (June 1, 2009 - May 31, 2014) for all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known off-site deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage as required by the RMP regulations. The five-year accident history allows the facility to explain to the community the factors causing or contributing to accidental releases, the on-site and off-site impacts of accidental releases, and the procedural and technological changes made to minimize the likelihood that these accidental releases will ever occur again. The intent of this information exchange is to create an informed community, while also documenting that accidental releases are investigated and concrete changes are made to protect against recurrence.

Personnel at the facility reviewed all incident investigation reports from June 1, 2009 to May 31, 2014 to identify accidental releases of extremely hazardous substances that resulted in deaths, injuries, or significant property damage on site, or known off-site deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. No accidental releases were identified.

5. The Emergency Response Plan

Overall safety at this facility is governed not only by the ability to prevent accidental releases of regulated substances, but also by the ability to mitigate any accidental releases. This facility therefore developed an emergency response program to minimize the effects of accidental releases of regulated substances on employees, the public, and the environment. The facility has a trained emergency response team (ERT), appropriate equipment and supplies, and a detailed Contingency Plan. The Contingency Plan outlines the procedures to be taken in the event of an accidental release of a regulated substance and specifies notification, evacuation, and release control and containment measures for accidental releases that may occur at the facility or on the highway (in transportation accidents).

The Contingency Plan Manual includes specific process information, a list of emergency equipment, emergency evacuation plans, and a list of plant personnel. The manual also includes a list of telephone numbers of agencies and individuals to contact in the event that one of several pre-identified emergencies (e.g., fire, employee injury, employee fatality). The agencies and individuals represent local emergency responders (e.g., fire department), public notification and regulatory reporting requirements (e.g., EPA), and internal notification (e.g., Branch Manager, Corporate Headquarters). Written coordination agreements that document arrangements with local emergency responders are maintained in the Contingency Plan Manual.

The Contingency Plan includes plans to respond to releases of regulated substances, and identifies the ERT training requirements, qualifications, and responsibilities within the incident command system. The ERT comprises individuals from operations, maintenance, and engineering. In addition to the ERT, this facility has identified, properly trained, and properly equipped employees to administer first aid until the outside responders arrive. All ERT members complete on-site annual eight-hour refresher training.

The Contingency Plan includes the chemical-specific emergency response procedures for releases of regulated and other extremely hazardous substances. The procedures identify the individuals by training level that perform the actions, administrative and engineering controls (e.g., ventilation), the required PPE, first aid requirements, and required equipment.

This facility maintains emergency response equipment and PPE for use by the ERT and the fire department. The emergency response equipment is included in the mechanical integrity program, assuring that required testing and inspection frequencies are adhered to and preventive maintenance activities are conducted. Examples of PPE maintained at this facility include air-purifying respirators and self contained breathing apparatuses.

The Contingency Plan is reviewed monthly to ensure that it remains accurate and current. Employees are trained in the emergency response program when initially hired, when the emergency response plan is revised, and when employees' responsibilities are changed. All employees receive annual refresher training on the emergency response program.

The Contingency Plan and documentation of emergency response activities are maintained in the facility's Contingency Plan Manual.

6. Planned Changes to Improve Safety

Studies associated with prevention program elements such as PHAs, incident investigations, management of change, and compliance audits are regularly conducted at this facility to verify designs and to identify potential hazards. Recommendations may be developed as a result of those studies and as a result of equipment inspections, safety meetings, review of industry experience, technology improvements, and employee suggestions. Once formulated, recommendations are reviewed and corresponding action items are developed to implement each recommendation.

JCI facility personnel reviewed the following documents to identify all action items that were formulated to reduce the risk (severity or likelihood) of an incident that could have plausibly resulted in an off-site consequence (i.e., the emergency response planning guideline level 2 [ERPG-2] developed by the American Industrial Hygiene Association for toxic gases):

- Accident Investigation Reports
- Process Hazard Analysis
- Standard Operating Procedures

In addition to the extensive safety and security mitigation systems that JCI currently has at its facility, JCI is currently planning on installing an intrusion detection system at this facility to provide continuous monitoring of its regulated substances. This system will include electrical monitoring of door contacts along with motion detector activated video cameras that will be monitored by a third-party company.

7. Worst Case and Alternative Case Release Scenarios

Worst Case Release Scenario: Entire contents of 180,000 pound railcar of Sulfur Dioxide.

Alternative Case Release Scenario: A chlorine container begins leaking at the filling station at any time during the repackaging process, to include immediately before or after the connection or disconnection process, for any reason to include employee error.

Alternative Case Release Scenario: A sulfur dioxide container begins leaking at the filling station at any time during the repackaging process, to include immediately before or after the connection or disconnection process, for any reason to include employee error.